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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/843,499

04/26/2001

Radu S. Jasinski

US 010118

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05/16/2006

EXAMINER

VENT, JAMIE J

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/843,499

**Applicant(s)**

JASINSCHI ET AL.

**Examiner**

Jamie Vent

**Art Unit**

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 7, 2006 has been entered.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Nafeh (US 5,343,251) in view of Walker et al (US 6,928,233) in further view of Foote et al (US 6,751,354).

**[claim 1]**

In regard to Claim 1, Nafeh discloses a method for selecting dominant multi-media cues from a number of video segments, comprising the steps of:

- calculating a multi-media information probability for each frame of the video segments ;
- dividing each of the video segments into sub-segments (Column 2 Lines 55-63 and Column 3 Lines 20-57 describes the dividing the video segments into sub segments);
- calculating a probability distribution of multi-media information for each of the sub-segments using the multi-media information for each frame (Column 6 Lines 6-12 describes calculating the probability information for each sub-segment);
- combining the probability distribution for each sub-segments to form a combined probability distribution (Column 6 Lines 14-50 describes combining the probability distribution for each sub segment to form the entire segments probability); and
- selecting the multi-media information having the highest combined probability in the combined probability distribution as the dominant multi-media cues (Column 5 Lines 52-67 describes selecting of the multi-media information which has desired weight or probability distribution); however, fails to disclose that the dividing each of the video segments into sub-segments using pre-selected multi-media characteristic and combining the probability distribution for each sub segment by averaging the probability distribution for each sub-segment for a combined probability distribution.

Walker et al discloses a signal processing apparatus wherein the video processor determines scene changes through extraction of visual/audio segments. Furthermore, it is noted in Column 3 Lines 63+ through Column 4 Lines 1-10 describes the dividing of the segments using multi-media characteristic such as speech, music, noise, and silence. The detection of the video segments through these characteristics provides the proper identification of segments through a

Art Unit: 2621

reliable format completed by the apparatus. Foote et al discloses a method for classifying video frames using statistical models by averaging the probability distribution for each sub-segment for a combined probability distribution as further described in Column 36 Lines 30+. The use of ability of averaging the probability for each sub-segment allows for a more accurate classification of the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the selection of multi-media cues, as disclosed by Nafeh, and incorporate a system wherein the segments are divided into sub-segments using pre-selected multi-media characteristic, as disclosed by Walker et al, and further incorporate a method for determining the probability distribution for each sub-segment, as disclosed by Foote et al.

**[claim 2]**

In regard to Claim 2, Nafeh discloses a method, wherein the video segments are selected from a group consisting of commercial segments and program segments (Column 2 Lines 1-7 describes the video segments comprise program and commercial segments).

**[claim 3]**

In regard to Claim 3, Nafeh discloses a method, wherein the dividing video segments into sub-segments is performed using close caption information included in the video segments (Column 3 Lines 44-45 describes the use of closed captioning for classifying and dividing the video segments into sub-segments).

**[claim 4]**

In regard to Claim 4, Nafeh discloses a method, wherein the combining the probability distribution for each sub-segments is performed by the operation selected from a group consisting of an average or a weighted average (Column 5 Lines 64-67 through Column 6 Lines

Art Unit: 2621

1-24 describes that the selected group of sub-segments consist of weighted average of the segments for classification).

**[claim 5]**

In regard to Claim 5, Nafeh discloses a method wherein the combined probability distribution is formed from probability distributions of sub-segments of multiple programs (Column 2 Lines 55-62 describes that calculations for probability are performed on the sub-segments of multiple programs).

**[claim 6]**

In regard to Claim 6, Nafeh discloses a method, which further includes initially selecting multi-media cues characteristic of a given TV program type or commercial (Column 2 Lines 63-67 describes the selection of multi-media cues that are classified as a TV program or commercial).

3. Claims 7-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nafeh (US 5,343,251) in view of Walker et al (US 6,928,233) in further view of Foote et al (US 6,751,354) in further view of Maeda (US 6,580,679).

**[claims 7, 12, & 15]**

In regard to Claims 7, 12, and 15, Nafeh in view of Walker et al in further view of Foote, discloses an apparatus method of segmenting and indexing video, comprising the steps of:

- pre-processing the video (Column 2 Lines 55-62 describes processing the video for classification/indexing);
- selecting program segments from the video (Column 3 Lines 20-32 describes the selecting of program segments from the video);
- dividing the program segments into program sub-segments (Column 2 Lines 55-63 and Column 3 Lines 20-57 describes the dividing the video segments into sub segments);

- storing the indexed program sub-segments (Figure 1a shows the storing of indexed program sub-segments in the memory buffer); however, fails to disclose performing genre-based indexing on the program using multi-media cues characteristic of a given genre of program and the dividing each of the video segments into sub-segments using pre-selected multi-media characteristic and calculating, combining, and selecting the probability distribution for each sub segment by averaging the probability distribution for each sub-segment for a combined probability distribution.

Maeda discloses a method of managing file regions on a recording medium. It is noted in Column 5 Lines 15-60 that the program segment is indexed according to genre of the program to allow for the user to access the segments through desired genre that one would like to search. Foote et al discloses a method for classifying video frames using statistical models by averaging the probability distribution for each sub-segment for a combined probability distribution as further described in Column 36 Lines 30+. The use of ability of averaging the probability for each sub-segment allows for a more accurate classification of the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the classifying method, as disclosed by Nafeh in view of Walker, and incorporate a the method of indexing the segments according to genre, as disclosed by Maeda.

**[claim 8]**

In regard to Claim 8, Nafeh discloses a method of selecting program segments is performed using multi-media cues characteristic of a given type of video segment (Column 2 Lines 1-7 describes the video segments comprise program and commercial segments).

**[claim 9]**

Art Unit: 2621

In regard to Claim 9, Nafeh discloses wherein the dividing the program segments into program sub-segments is performed according to closed caption information included in the program segments (Column 3 Lines 44-45 describes the use of closed captioning for classifying and dividing the video segments into sub-segments).

**[claims 10, 13, & 16]**

In regard to Claims 10, 13, and 16, Nafeh in view of Walker et al, discloses a method of classifying program segments however; fails to disclose the following:

- comparing the multi-media cues characteristic of a given genre of program to each of the program sub-segments; and
- inserting a tag into one of the program sub-segments if there is a match between one of the multi-media cues and sub-segments.

Maeda discloses a method of classifying program segments wherein the segments are compared by the genre of each sub-segment as disclosed in Column 7 Lines 7-37.

Furthermore, a tag is inserted into the program segments, which discloses the genre of the segment as seen in Figures 4a-4b. Thereby allowing the segments to be compared and marked when genres are matching which allows user easier access to the programs that fall under specific genre that they maybe searching. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system for classifying program segments, as disclosed by Nafeh in view of Walker et al, and incorporate a method of classifying the program segments by genre and marking the genres for comparison, as disclosed by Maeda.

**[claims 11, 14, & 17]**

Art Unit: 2621

In regard to Claims 11, 14, and 17 Nafeh discloses a method as recited in Claim 7, which further includes performing object-based indexing on the program sub-segments (Column 5 Lines 30-67 describes the object-based indexing of the program sub-segments).

**[claims 18, 19, 20]**

In regard to Claim 18, 19, 20, Nafeh discloses a method wherein the average is selected from the group consisting of: a straight average and a weighted average (Column 4 Lines 63+ through Column 5 Lines 1-10 describes the method wherein the average is selected from a group of straight and weighted averages).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Massen (US 5,794,788).

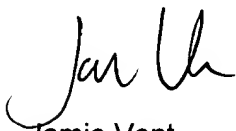
***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

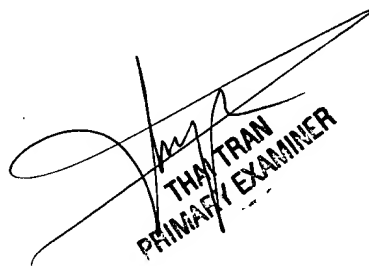
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jamie Vent  
05/08/06



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PRIMARY EXAMINER